(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property **Organization** International Bureau



(43) International Publication Date 1 September 2005 (01.09.2005)

PCT

(10) International Publication Number WO 2005/079637 A1

(51) International Patent Classification⁷: 31/40

A47J 31/06,

(21) International Application Number:

PCT/GB2005/000468

(22) International Filing Date: 11 February 2005 (11.02.2005)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 0403495.5

17 February 2004 (17.02.2004) GB

(71) Applicant (for all designated States except US): KRAFT FOODS R & D, INC. [US/DE]; Bayerwaldstrasse 8, 81737 Munich (DE).

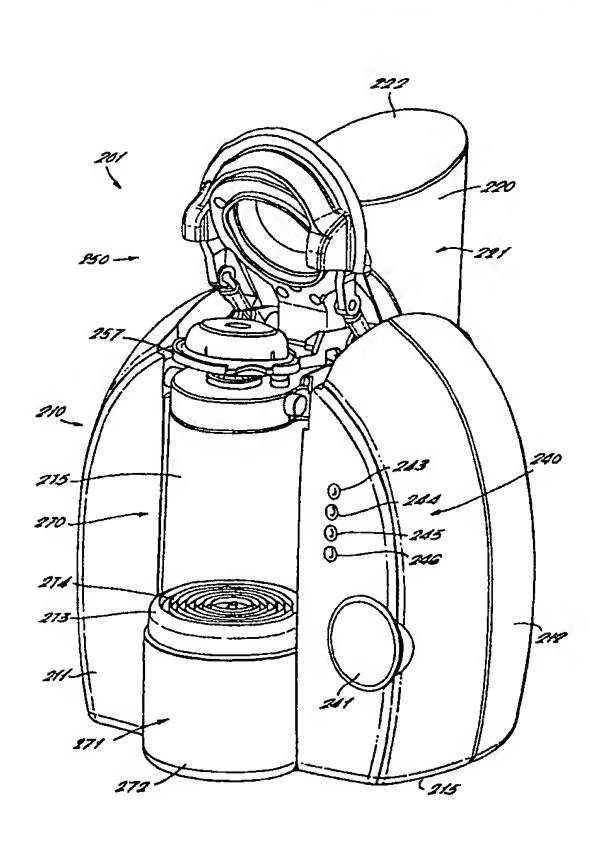
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): HALLIDAY, Andrew, Michael [GB/GB]; Kraft Foods UK Ltd., Ruscote Avenue, Banbury, Oxfordshire OX16 2QU (GB). HANSEN, Nicholas, Andrew [GB/GB]; Kraft Foods UK Ltd., Ruscote Avenue, Banbury, Oxfordshire OX16 2QU

(GB). BALLARD, Colin, Darrel [GB/GB]; Kraft Foods UK Ltd., Ruscote Avenue, Banbury, Oxfordshire OX16 2QU (GB). PANESAR, Satwinder, Singh [GB/GB]; Kraft Foods UK Ltd., Ruscote Avenue, Banbury, Oxfordshire OX16 2QU (GB).

- (74) Agents: ALEXANDER, Thomas, Bruce et al.; Boult Wade Tennant, Verulam Gardens, 70 Gray's Inn Road, London WC1X 8BT (GB).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: AN INSERT, A MACHINE AND A SYSTEM FOR THE PREPARATION OF BEVERAGES



(57) Abstract: An insert (400) for use in a beverage preparation machine (201) of a type comprising a brew head (250) suitable for receiving a rigid or semi-rigid cartridge (1). The brew head (250) comprises an upwardly directed inlet (253) for supplying water to the brew head (250), a downwardly directed outlet (254) for outflow of beverage produced by the machine (201), and a closure mechanism moveable between open and closed configurations. The insert (400) comprises a receptacle (401) and sealing means (403), the receptacle (401) having an opening through which, in use, a quantity of beverage ingredients may be loaded into the receptacle, a lower portion of the insert comprising an inlet (405) and an outlet (404). In use, on insertion of the insert (400) into the brew head (250) of the beverage preparation machine (201) and movement of the closure mechanism into the closed position the sealing means (403) is contactable with, and sealable against, the brew head (250) to thereby close the opening of the receptacle (401) to define a I brewing volume containing the quantity of beverage ingredients, and on inserting the insert (400) into the brew head (250) the inlet (405) and outlet (404) of the insert (400) are arranged to communicate respectively with the inlet (253) and outlet (254) of the brew head (250) such that, in use, water from the inlet (253) of the brew head (250) passes upwardly through the inlet (405) of the insert (400) into the brewing volume and such that beverage produced from the water and the quantity of beverage ingredients passes downwardly through the outlet (404) of the insert (400) to flow out of the outlet (254) of the brew head (250).

WO 2005/079637 A1



European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for all designations

of inventorship (Rule 4.17(iv)) for US only

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.